

Serial No. 10/092,300

Docket No.: 1567.1027

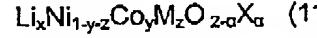
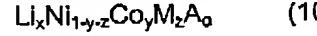
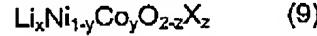
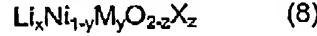
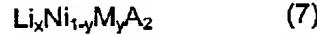
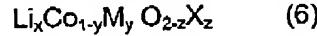
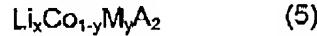
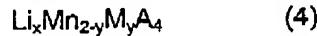
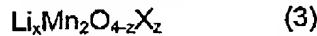
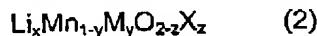
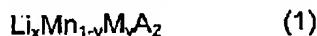
IN THE CLAIMS:

Please CANCEL claims 7-9 and 25-31 without prejudice or disclaimer, WITHDRAW claims 15-23, 32, 34 and 35, and ADD claims 36-39, as follows:

1. (ORIGINAL) A positive active material composition for a rechargeable lithium battery, comprising:

a positive active material comprising at least one lithiated compound; and at least one additive compound selected from the group consisting of a thermal-absorbent element-included hydroxide, a thermal-absorbent element-included oxyhydroxide, a thermal-absorbent element-included oxycarbonate, and a thermal-absorbent element-included hydroxycarbonate.

2. (ORIGINAL) The positive active material composition according to claim 1, wherein the at least one lithiated compound is a compound selected from the group consisting of compounds represented by the formulas 1 to 13:



wherein,

$0.95 \leq x \leq 1.1$, $0 \leq y \leq 0.5$, $0 \leq z \leq 0.5$, $0 \leq \alpha \leq 2$,

M is one element selected from the group consisting of Al, Ni, Co, Mn, Cr, Fe, Mg,

Sr, V, and rare earth elements,

A is selected from the group consisting of O, F, S, and P, and

X is selected from the group consisting of F, S, and P.

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3. (ORIGINAL) The positive active material composition according to claim 1, wherein the thermal-absorbent element is an element selected from the group consisting of Mg, Al, Co, K, Na, Ca, Si, Ti, Sn, V, Ge, Ga, B, As, and Zr.

4. (ORIGINAL) The positive active material composition according to claim 1, wherein said at least one additive compound comprises an amount at or between 0.1 weight % and 1 weight % based on the weight of the positive active material composition.

5. (ORIGINAL) The positive active material composition according to claim 1, wherein said additive compound is prepared by drying a liquid comprising a thermal-absorbent element or a thermal-absorbent element-included compound at a temperature ranging from at or between room temperature and 200°C for at or between 1 and 24 hours.

6. (ORIGINAL) The positive active material composition according to claim 1, wherein said additive compound is amorphous.

7-9. (CANCELLED)

10. (ORIGINAL) A positive active material composition for a rechargeable lithium battery comprising:

a positive active material comprising at least one lithiated compound; and at least one additive compound selected from the group consisting of a thermal-absorbent element-included hydroxide, a thermal-absorbent element-included oxyhydroxide, a thermal-absorbent element-included oxycarbonate, and a thermal-absorbent element-included hydroxycarbonate,

wherein the thermal-absorbent element is one of Al and B.

11. (ORIGINAL) The positive active material composition according to claim 10, wherein the at least one lithiated compound is selected from the group consisting of compounds represented by the formulas 1 to 13:

$Li_xMn_{1-y}M_yA_2$ (1)

$Li_xMn_{1-y}M_yO_{2-z}X_z$ (2)

$Li_xMn_2O_{4-z}X_z$ (3)

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$\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{A}_4$ (4)
 $\text{Li}_x\text{Co}_{1-y}\text{M}_y\text{A}_2$ (5)
 $\text{Li}_x\text{Co}_{1-y}\text{M}_y\text{O}_{2-z}\text{X}_z$ (6)
 $\text{Li}_x\text{Ni}_{1-y}\text{M}_y\text{A}_2$ (7)
 $\text{Li}_x\text{Ni}_{1-y}\text{M}_y\text{O}_{2-z}\text{X}_z$ (8)
 $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_{2-z}\text{X}_z$ (9)
 $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{M}_z\text{A}_a$ (10)
 $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{M}_z\text{O}_{2-a}\text{X}_a$ (11)
 $\text{Li}_x\text{Ni}_{1-y}\text{M}_y\text{M}_z\text{A}_a$ (12)
 $\text{Li}_x\text{Ni}_{1-y}\text{M}_y\text{M}_z\text{O}_{2-a}\text{X}_a$ (13)

wherein,

 $0.95 \leq x \leq 1.1, 0 \leq y \leq 0.5, 0 \leq z \leq 0.5, 0 \leq a \leq 2,$

M is one element selected from the group consisting of Al, Ni, Co, Mn, Cr, Fe, Mg, Sr, V, and rare earth elements,

A is selected from the group consisting of O, F, S, and P, and

X is selected from the group consisting of F, S, and P.

12. (ORIGINAL) The positive active material composition according to claim 10, wherein said at least one additive compound comprises an amount at or between 0.1 weight % and 1 weight % based on the weight of the positive active material composition.

13. (ORIGINAL) The positive active material composition according to claim 10, wherein said additive compound is prepared by drying a liquid comprising a thermal-absorbent element or a thermal-absorbent element-included compound at a temperature at or between room temperature and 200°C for at or between 1 and 24 hours.

14. (ORIGINAL) The positive active material composition according to claim 10, wherein said additive compound is amorphous.

15. (WITHDRAWN) A-The positive active material composition of claim 1, wherein: for a rechargeable lithium battery comprising:
at the at least one lithiated compound of the positive active material comprising comprises a lithium-cobalt based compound; and
at the at least one additive compound comprising comprises an Al-included hydroxide.

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16. (WITHDRAWN) The positive active material composition according to claim 15, wherein said additive compound comprises an amount at or between 0.1 weight % and 1 weight % based on the weight of the positive active material composition.

17. (WITHDRAWN) The positive active material composition according to claim 15, wherein said additive compound is prepared by drying a liquid comprising a thermal-absorbent element or a thermal-absorbent element-included compound at a temperature at or between room temperature and 200°C for at or between 1 and 24 hours.

18. (WITHDRAWN) The positive active material composition according to claim 15, wherein said additive compound is amorphous.

19. (WITHDRAWN) A The positive active material composition of claim 1, wherein: for a rechargeable lithium battery comprising:

a-the at least one lithiated compound of the positive active material comprising comprises a lithium-cobalt based compound; and
an-the at least one additive compound comprising comprises a B-included hydroxide.

20. (WITHDRAWN) The positive active material composition according to claim 19, wherein said additive compound comprises an amount at or between 0.1 weight % and 1 weight % based on the weight of the positive active material composition.

21. (WITHDRAWN) The positive active material composition according to claim 19, wherein said additive compound is prepared by drying a liquid comprising a thermal-absorbent element or a thermal-absorbent element-included compound at a temperature at or between room temperature and 200°C for at or between 1 and 24 hours.

22. (WITHDRAWN) The positive active material composition according to claim 18, wherein the additive compound is crystalline.

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23. (WITHDRAWN) The positive active material composition of claim 1, further comprising another additive compound selected from the group consisting of the thermal-absorbent element-included hydroxide, the thermal-absorbent element-included oxyhydroxide, the thermal-absorbent element-included oxycarbonate, and the thermal-absorbent element-included hydroxycarbonate.

24. (ORIGINAL) The positive active material composition of claim 4, wherein the amount is at or between 0.1 weight % and 0.5 weight% based on the weight of the positive active material composition.

25-31. (CANCELLED)

32. (WITHDRAWN) The positive active material composition of claim 10, further comprising another additive compound selected from the group consisting of the thermal-absorbent element-included hydroxide, the thermal-absorbent element-included oxyhydroxide, the thermal-absorbent element-included oxycarbonate, and the thermal-absorbent element-included hydroxycarbonate.

33. (ORIGINAL) The positive active material composition of claim 12, wherein the amount is at or between 0.1 weight % and 0.5 weight% based on the weight of the positive active material composition.

34. (WITHDRAWN) The positive active material composition of claim 16, wherein the amount is at or between 0.1 weight % and 0.5 weight% based on the weight of the positive active material composition.

35. (WITHDRAWN) The positive active material composition of claim 20, wherein the amount is at or between 0.1 weight % and 0.5 weight% based on the weight of the positive active material composition.

36. (NEW) The positive active material composition according to claim 1, wherein the at least one additive compound does not include lithium.

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37. (NEW) The positive active material composition according to claim 6, wherein the at least one additive compound does not include lithium.

38. (NEW) The positive active material composition according to claim 1, wherein the positive active material composition is formed by combining a powder containing the positive active material powder with a powder containing the at least one additive compound in a solvent to form a positive active material slurry to be coated on a current collector of an electrode of the lithium battery.

39. (NEW) The positive active material composition according to claim 1, wherein the positive active material is not coated with a coating including the at least one additive compound.